

**Remarks:**

**I. Introduction**

Applicant and the undersigned attorney would like to thank Examiner Ganesan and Examiner Matthews for the courtesies extended during the personal interview granted on March 11, 2008.

Upon entry of the present amendment, claims 1-25 will be pending in this application. Claims 1, 14, 22 and 23 have been amended to clarify certain aspects of the invention. Support for these amendments appears in the specification at pages 5-7. New claims 24 and 25 have been added to clarify the embodiment in which not only are surfaces porous, but the material is porous throughout the implant. Support appears in the specification at page 9 and Figure 18 (the mesh is provided within a porous polyethylene matrix.) No new matter has been added. Other claims have been amended to change “said” to “the” for claim simplicity. Based on the following remarks, Applicant respectfully requests reconsideration of the rejections and allowance of the pending claims.

**II. 35 U.S.C. § 112**

The Examiner has objected to claim 11 as having insufficient antecedent basis for “said means.” The Examiner is correct – claim 11 should depend from claim 10, not claim 9. Appropriate correction has been made.

**III. 35 U.S.C. § 102(b)**

**A. Wellisz**

The Examiner has rejected claims 1, 2, 7, and 9-11 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,743,913 to Wellisz. The Examiner states that Wellisz

discloses the claimed elements. In light of the currently submitted claim amendments, Applicant respectfully traverses this rejection and requests reconsideration and withdrawal thereof.

The claims currently clarify that the “resin is formed around at least a portion of the mesh, and in that portion, the resin fills the interstices of the mesh and is in contact with all surfaces of the mesh.” This is in contrast to the Wellisz disclosure, which describes a plate that can have a surface coating of a polymer. The granules are deposited on the plate – they do not fill interstices of the mesh as presently claimed.

B. Morgan

The Examiner has also rejected claims 1-5, 7-8, 10-11, 14-16, and 19-21 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,380,328 to Morgan. The Examiner states that Morgan discloses the claimed elements. In light of the currently submitted claim amendments, Applicant respectfully traverses this rejection and request reconsideration and withdrawal thereof.

Morgan is directed primarily to a sandwich-type implant, in which layers of materials are sandwiched together. The claims currently clarify that the “resin is formed around at least a portion of the mesh and in that portion, the resin fills the interstices of the mesh and is in contact with all surfaces of the mesh.” This structure is not taught or disclosed by the Morgan patent.

#### IV. 35 U.S.C. § 103

##### A. Wellisz in view of Morgan

The Examiner has rejected claim 6 under 35 U.S.C. § 103(a) as being unpatentable over Wellisz in view of Morgan. The Examiner admits that Wellisz does not disclose a smooth barrier surface but submits that Morgan teaches the use of a barrier for the purpose of precluding the passage of unwanted biological cells and that it would have been obvious to modify Wellisz to include a smooth barrier surface on the opposite side in order to prevent unwanted cellular infiltration from one side of the implant.

As discussed above, the claims have been amended to distinguish over Wellisz and Morgan, such that even if the references were combined as suggested, the claimed invention would not result. Accordingly, Applicant respectfully requests reconsideration and withdrawal of this rejection.

##### B. Wellisz and Morgan in view of Cohen

The Examiner has rejected claims 12-13 under 35 U.S.C. § 103(a) as being unpatentable over Wellisz and Morgan further in view of Cohen et al. (US Patent No. 6,087,553). The Examiner admits that Wellisz and Morgan fail to teach the use of a mold with applied heat and pressure but submits that Cohen teaches using heat and pressure to secure polyethylene to an implant surface. The Examiner's position is that it would have been obvious to modify the methods of Wellisz and Morgan to include the use of a mold with applied heat and pressure in order to provide an interface between the polyethylene and the implant surface that is securely fixed and does not allow micro and macro motion between the two materials. Applicant respectfully traverses this rejection.

Accordingly, without acquiescing to the proper combinability of these references, the claims have been amended to distinguish over Wellisz and Morgan, such that even if they were combined with the teachings of Cohen, the claimed invention would not result. Accordingly, Applicant respectfully requests reconsideration and withdrawal of this rejection.

**C. Morgan**

The Examiner has rejected claims 17-18 under 35 U.S.C. § 103(a) as being unpatentable over Morgan. The Examiner admits that Morgan lacks specific disclosure of the implant being used in the orbit but submits that it would have been obvious to use the craniofacial implant of Morgan in an orbit in order to treat an orbital defect.

As discussed above, the claims have been amended to distinguish over the Morgan patent, such that even if the suggested use was made, the claimed invention would not result. Accordingly, Applicant respectfully requests reconsideration and withdrawal of this rejection.

**D. Wellisz in view of Scantlebury**

The Examiner has rejected claim 22 under 35 U.S.C. § 103(a) as being unpatentable over Wellisz in view of U.S. Patent No. 4,531,916 to Scantlebury et al. The Examiner admits that Wellisz is silent as to whether the thermoplastic resin covers the top and bottom surface of the implant and the pore size of the polyethylene layer, but submits that Scantlebury teaches coating an implant with porous polyethylene with porosity between 50-500 microns for the purpose of allowing the ingrowth of tissue to secure the implant. The Examiner's position is that it would have been obvious to modify the implant of Wellisz to include a coating of porous polyethylene with a porosity of between 50-500 microns as taught by Scantlebury in order to

provide a coating to allow tissue ingrowth to secure and support the implant. Applicant respectfully traverses this rejection and requests reconsideration and withdrawal thereof.

Claim 22 has been amended to clarify that “the polyethylene fills spaces between the mesh.” By contrast, Scantlebury relates to a coating applied only to the surface of a dental prosthetic root, and Wellisz discloses only a surface layer application of a polymer layer applied to a plate. Neither reference teaches or suggests a sheet of polyethylene with a surgical grade metal mesh contained therein such that the polyethylene fills spaces between the mesh. Accordingly, without acquiescing to the proper combinability of these references, Applicant submits that even if they were combined, the claimed invention would not result.

E. Wellisz and Scantlebury in view of Morgan

The Examiner has rejected claim 23 under 35 U.S.C. § 103(a) as being unpatentable over Wellisz in view of Scantlebury et al., in further view of Morgan. The Examiner admits that the combination of Wellisz and Scantlebury lacks a barrier surface of polyethylene but submits that Morgan teaches the use of a barrier for the purpose of precluding unwanted biological cells. The Examiner’s position is that it would have been obvious to modify the implant of Wellisz and Scantlebury to include a smooth barrier surface on the opposite side of the porous thermoplastic resin in order to prevent unwanted cellular infiltration from one side of the implant. Applicant respectfully traverses this rejection and requests reconsideration and withdrawal thereof.

Claim 23 has been amended to clarify that “the polyethylene fills spaces between the mesh.” By contrast, none of the Scantlebury, Wellisz or Morgan references teach or suggest a sheet of polyethylene with a surgical grade metal mesh contained therein such that the

polyethylene fills spaces between the mesh. Moreover, the barrier of Morgan is not a true barrier – it is a microporous membrane that actually seeks to allow passage of biological nutrients. Accordingly, without acquiescing to the proper combinability of these references, Applicant submits that even if they were combined, the claimed invention would not result.

## **CONCLUSION**

For at least the above reasons, Applicant respectfully requests allowance of the pending claims and issuance of a patent containing these claims in due course. If there remain any additional issues to be addressed, the Examiner is invited to contact the undersigned at 404.815.6147.

Respectfully submitted,

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